

Coffin Cave Conservation Area

Ten-Year Area Management Plan FY 2016-2025



Lisa D. Allen
Forestry Division Chief

1-11-16
Date

Coffin Cave Conservation Area Management Plan Approval Page

PLANNING TEAM:

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SW RCT Chair

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1/5/16
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FORESTRY DIVISION

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OVERVIEW

- **Official Area Name:** Coffin Cave Conservation Area, #7937
- **Year of Initial Acquisition:** 1979
- **Acreage:** 68 acres
- **County:** Laclede
- **Division with Administrative Responsibility:** Forestry
- **Division with Maintenance Responsibility:** Forestry
- **Statements of Purpose:**
 - A. Strategic Direction**

Protect cave habitat, species of conservation concern, and manage for healthy, sustainable forest, woodland and glade natural communities for future generations to use and enjoy.
 - B. Desired Future Condition**

The desired future condition of Coffin Cave Conservation Area (CA) is forested uplands, open glades and undisturbed cave habitat that will allow natural processes to continue.
 - C. Federal Aid Statement**

N/A

GENERAL INFORMATION AND CONDITIONS

- I. Special Considerations**
 - A. Priority Areas:** Niangua Basin Profiled Conservation Opportunity Area, Upper Niangua Terrestrial Conservation Opportunity Area, Bennett Spring Aquatic Conservation Opportunity Area
 - B. Natural Areas:** None
- II. Important Natural Features and Resources**
 - A. Species of Conservation Concern:** Species of conservation concern are known from this area. Area Managers should consult the Natural Heritage Database annually and review all management activities with the Natural History Biologist.
 - B. Caves:** Yes, records kept with the Missouri Department of Conservation (the Department) Natural History Biologist, Department Bat Biologist and Assistant Cave Ecologist. Managers should follow the Cave Management policy found in the Department Resource Policy Manual. All caves on this and other Conservation Areas are closed or restricted to public access. The fungus that causes White-nose Syndrome in bats has been documented in Missouri, resulting in the Department's White-nose Syndrome Action Plan that limits public access to protect bats.

C. Springs: Yes, records kept with Department Natural History Biologist, Department Bat Biologist and Assistant Cave Ecologist.

III. Existing Infrastructure

- Chain-link fence around Coffin Cave for public protection and protection of fragile cave habitat

IV. Area Restrictions or Limitations

- A. Deed Restrictions or Ownership Considerations:** None
- B. Federal Interest:** Federal funds may be used in the management of this land. Fish and wildlife agencies may not allow recreational activities and related facilities that would interfere with the purpose for which the State is managing the land. Other uses may be acceptable and must be assessed in each specific situation.
- C. Easements:** Laclede County Road Easement through tract
- D. Cultural Resources Findings:** Yes, records kept with the Department Environmental Compliance Specialist. Managers should follow Best Management Practices for Cultural Resources found in the Department Resource Policy Manual.
- E. Hazards and Hazardous Materials:** Coffin Cave is a dangerous pit cave with no safe access point. Sheer sides and a 75-foot vertical drop make public access impossible. Cave entrance is surrounded by high chain link fence and posted "Restricted – No Entrance."
- F. Endangered Species:** Endangered species are known from this area. Area Managers should consult the Natural Heritage Database annually and review all management activities with the Natural History Biologist, Department Bat Biologist and Assistant Cave Ecologist.
- G. Boundary Issues:** None.

MANAGEMENT CONSIDERATIONS

V. Terrestrial Resource Management Considerations

Management centers on protection of critical cave habitat and providing upland wildlife habitat and hunting opportunities. Area maintenance is provided by staff within Forestry Division.

Challenges and Opportunities

- 1) Control invasive and exotic species.

Management Objective 1: Enhance, restore and protect forest and woodland natural communities (Forestry).

Strategy 1: Suppress all wildfires on the area through direct control and by maintaining or adding firebreaks.

Strategy 2: Use even-aged and uneven-aged management practices to correct deficiencies in tree composition (species and age) and/or stand structure according to current structure, age, site index and species composition. Maintain loose bark tree composition for bat habitat.

Strategy 3: Due to the small tract size, forest inventory may be completed on an as-needed basis to monitor stand composition and assess needs for forest health.

Strategy 4: Use prescribed fire and/or other techniques such as chemical and mechanical treatment to control invasive woody plants.

Management Objective 2: Enhance, restore and protect glade natural communities (Forestry).

Strategy 1: Restore glade natural communities through removal of invasive woody species and prescribed fire.

Management Objective 3: Maintain riparian corridors as specified in the Department's Watershed and Stream Management Guidelines (2009). (Forestry, Fisheries)

Strategy 1: Allow natural vegetative processes to continue.

Strategy 2: Monitor riparian corridor and take appropriate management action to protect or restore riparian cover.

Management Objective 4: Prevent soil erosion due to infrastructure and as a result from forest management activities (Forestry).

Strategy 1: Ensure roads and roadside drainages are maintained to reduce runoff, sedimentation, erosion and inadvertent runoff into Coffin Cave.

Strategy 2: Implement best management practices on forest management activities to prevent soil erosion as outlined in the *Missouri Watershed Protection Practice Recommended Practices for Missouri Forests: 2014 Management Guidelines for Maintaining Forested Watersheds to Protect Streams* (Missouri Department of Conservation, 2014).

Management Objective 5: Control invasive and exotic species (Forestry).

Strategy 1: Monitor area for invasive and exotic species periodically and use appropriate strategies for control. These could include mechanical, chemical or prescribed fire treatments.

Management Objective 6: Protect Coffin Cave entrance and habitat (Forestry).

Strategy 1: Monitor and maintain security fence around Coffin Cave entrance.

Strategy 2: Monitor stormwater flow off Marigold Road and maintain water diversion structures to prevent county road runoff from entering cave.

Strategy 3: Consult with appropriate staff for recommendations on cave habitat management needs or concerns.

VI. Aquatic Resource Management Considerations

Management centers on providing watershed protection. Area maintenance is provided by staff within Forestry Division.

Challenges and Opportunities:

- 1) Prevent county road siltation from reaching streams.

Management Objective 1: Protect and enhance watershed and aquatic habitat (Forestry, Fisheries).

Strategy 1: Continue to maintain the established forested riparian corridors associated with intermittent streams on the area.

Strategy 2: Employ appropriate best management practices associated with management and enhancement projects.

Strategy 3: Use native grass and forested buffers to slow water off county road ditches and to filter sediments before they reach streams.

VII. Public Use Management Considerations

Challenges and Opportunities:

- 1) Keep the public informed of the opportunities available at this area.
- 2) Maintain the area in a desirable condition.

Management Objective 1: Maintain suitable public access (Forestry).

Strategy 1: Ensure existing infrastructure is maintained to Department standards.

Management Objective 2: Continue to inform the public of the opportunities at this area (Forestry, Fisheries, Outreach and Education).

Strategy 1: Maintain signage at Coffin Cave CA in accordance with Department policy.

Strategy 2: Maintain up-to-date information about Coffin Cave CA on Department webpage.

Management Objective 3: Provide recreational and educational opportunities for the public (Forestry).

Strategy 1: Issue trapping permits through the Special Use Permitting process.

VIII. Administrative Considerations

Challenges and Opportunities:

- 1) Ensure all easements are properly documented and filed at County Recorder's Office.
- 2) Evaluate land offered as additions to this area.

Management Objective 1: Ensure all easements are properly filed at County Recorder's Office (Forestry).

Strategy 1: Use Geographic Information System and surveys, where necessary, to ensure that any easements are properly located.

Lands Proposed for Acquisition:

- When available, adjacent land may be considered for acquisition from willing sellers. Tracts that improve area access, provide public use opportunities; contain unique natural communities and/or species of conservation concern, or meet other Department priorities, as identified in the annual Department land acquisition priorities, may be considered. Of special interest are lands located between Coffin Cave and the Niangua River Corridor, in order to protect and enhance cave habitat connectivity with the riverine habitat system.
- Any expansion of this area should be considered only after review of the impacts to staff work loads and whether the area can be maintained using current staffing level.

MANAGEMENT TIME TABLE

Strategies are considered ongoing unless listed in the following table:

	FY16	FY17	FY18	FY19	FY20	FY21	FY22	FY23	FY24	FY25
Terrestrial Resource Management										
<i>Objective 2</i>										
Strategy 1	X			X			X			X

APPENDICES

Area Background:

Coffin Cave CA was purchased by the Department in 1979 for the purpose of protecting the Coffin Cave habitat. The entrance to Coffin Cave is a vertical shaft. Consequently, a fence was built that surrounds the cave entrance to protect the public and discourage entrance to the cave. Several research projects have been conducted on the cave habitat and its inhabitants; and, the cave has been thoroughly mapped. Bat populations in the cave are closely monitored.

Legal Description: Township 35 North, Range 17 West, Section 7.

Area Location: Twelve miles west of Lebanon on Highway 64 and 4.5 miles north on Marigold Drive.

Current Land and Water Types:

Land/Water Type	Acres	% of Area
Forest/Woodlands	51	75
Glade	17	25
Total	68	100

Public Input Summary:

The draft Coffin Cave Conservation Area Management Plan was available for a public comment period August 1-31, 2015. The Missouri Department of Conservation received no comments during this time period.

References:

Missouri Department of Conservation. (2009). *Watershed and stream management guidelines for lands and waters managed by Missouri Department of Conservation*. Jefferson City, Missouri: Missouri Department of Conservation.

Missouri Department of Conservation. (2014). *Missouri watershed protection practice recommended practices for Missouri forests: 2014 management guidelines for maintaining forested watersheds to protect streams*. Jefferson City, Missouri: Conservation Commission of the State of Missouri.

Maps:

Figure 1: Area Map of Coffin Cave CA

Figure 2: Aerial Land Type

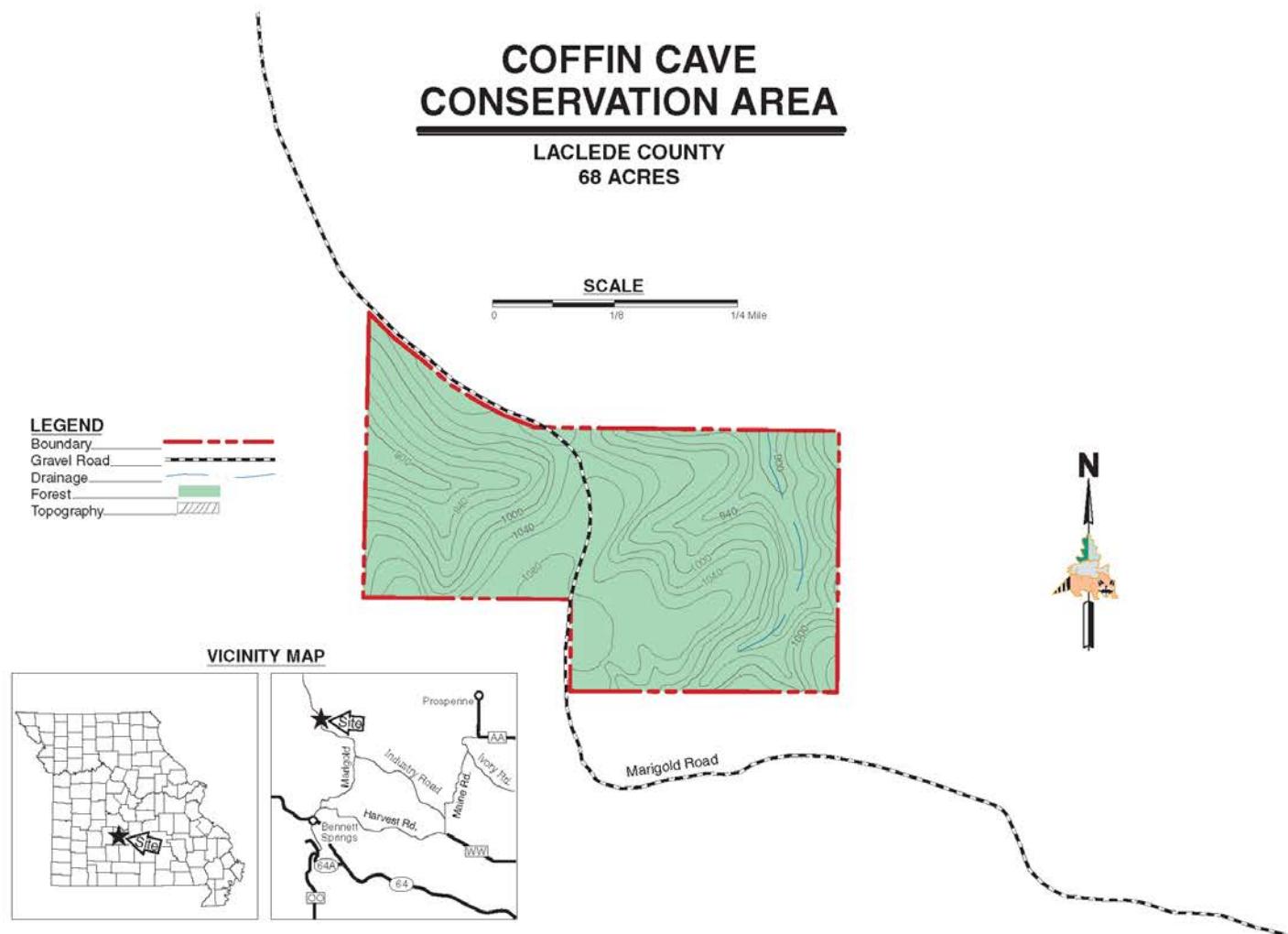
Figure 1: Area Map of Coffin Cave CA

Figure 2: Aerial Land Type

